

WATER QUALITY M E M O R A N D U M

Utah Coal Regulatory Program

April 13, 2005

TO: Internal File

THRU: D. Wayne Hedberg, Permit Supervisor

FROM: James D. Smith, Environmental Scientist

RE: 2004 Fourth Quarter Water Monitoring, PacifiCorp, Deer Creek Mine,
C/015/0018, Task ID # 2076

The Deer Creek Mine monitoring plan is described in Appendix A of Volume 9 of the MRP.

1. Were data submitted for all required sites?

| | |
|----------------|---|
| Springs | YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> |
| Streams | YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> |
| Wells | YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> |
| UPDES | YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> |
| In-mine | YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> |

2. Were all required parameters reported for each site?

| | |
|----------------|---|
| Springs | YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> |
|----------------|---|

Rilda Meter 3: Valve problems prevented collection of November flow and December operational parameters data.

| | |
|----------------|---|
| Streams | YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> |
|----------------|---|

ICF: water samples for lab analyses were lost in transit. Field parameters were not reported.

| | |
|----------------|---|
| Wells | YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> |
| UPDES | YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> |
| In-mine | YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> |

3. Were irregularities found in the data?

Listed parameters were outside two standard deviations. An asterisk (*) indicates this is not a parameter required by the MRP.

| | |
|----------------|---|
| Springs | YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> |
|----------------|---|

Burnt Tree: field conductivity (n = 35);
Sheba Spring: Ca (n = 13);
Ted's Tub: field conductivity (n = 24);
79-10: lab pH* (n = 48);
89-65: field conductivity (n = 18), lab pH* (n = 20), Ca (n = 12), Mg (n = 12),
and total alkalinity* (n = 20);
89-67: field conductivity (n = 25), Ca (n = 14), and Mg (n = 14);
JV-9: total hardness (n = 8) and TDS (n = 8);
MF-7: water temperature (n = 8);
MF-213: flow (n = 8);
RR-23A: water temperature (n = 8).

| | |
|----------------|---|
| Streams | YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> |
|----------------|---|

RCF-3 December: field DO (n = 74).

| | |
|--------------|---|
| Wells | YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> |
|--------------|---|

CCW-1S October, November, and December: water level and depth (n = 81).
This water level has been dropping slowly for several years;
CCW-3S-U October, November, and December: water level and depth (n = 79);
DCWR-1: cation-anion balance (n = 13).

| | |
|--------------|---|
| UPDES | YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> |
|--------------|---|

UT0023604-002 December: field conductivity (n = 190).

| | |
|----------------|---|
| In-mine | YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> |
|----------------|---|

Main North-Main East: water temperature (n = 43).

4. On what date does the MRP require a five-year resampling of baseline water data.

Renewal submittal due 10/07/05, renewal due 02/07/06. Baseline analyses were performed in 2001 and will be repeated every 5 years, i.e., the next baseline analyses will be in 2006.

5. Based on your review, what further actions, if any, do you recommend?

The valve problems at NEWUA Meter # 3 need to be resolved so flow measurement and water sampling can be done.

6. Does the Mine Operator need to submit more information to fulfill this quarter's monitoring requirements? ☐ Yes ☒ No

7. Follow-up from last quarter, if necessary.

None.

8. Did the Mine Operator submit all the missing or irregular data?

NA